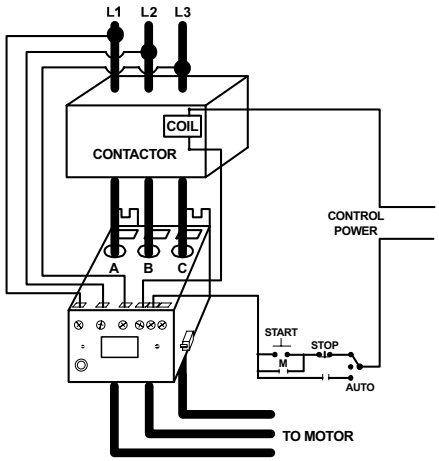
Littelfuse
Expertise Applied | Answers Delivered

777-KW/HP-P2 SERIES

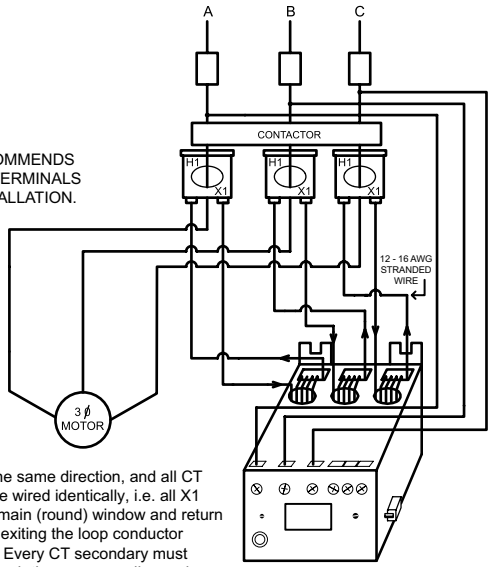
3-Phase Current & Voltage Monitor

Wiring Diagram

TYPICAL WIRING DIAGRAM FOR 777-KW/HP-P2 SERIES



CURRENT TRANSFORMER WIRING DIAGRAM FOR 777-KW/HP-P2 SERIES

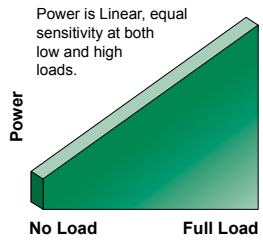


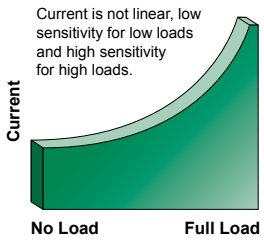
LITTELFUSE RECOMMENDS USING CTs WITH TERMINALS TO SIMPLIFY INSTALLATION.

All CTs must face the same direction, and all CT secondaries must be wired identically, i.e. all X1 terminals enter the main (round) window and return to H1 terminal after exiting the loop conductor window (rectangle). Every CT secondary must make 5 passes through the corresponding main conductor window.

Description

The 777-KW/HP-P2 series has the overload, voltage, phase loss and reversal, voltage and current unbalance, current and power monitoring*, and underload trip based on power in one package. The underpower trip feature is desirable anytime the current vs. load characteristic is non-linear or has little change. In general terms, smaller motors and slow-speed motors have little change in current over the normal load range. Larger motors that are running light loads will also show small current changes over the operating load range. For standalone applications, the units incorporate a 3-digit LED display that is used for programming, providing real-time operational information and displaying diagnostic codes to aid in troubleshooting a fault condition.





The units also feature a communications port that can be used with communication modules listed in the 777 accessories section to form a Modbus, DeviceNet**, Profibus, or Ethernet network. Up to 99 units can be remotely monitored and controlled from a PC, PLC, or SCADA system, and data logging through a PC with the optional Solutions software.

Features & Benefits

FEATURES	BENEFITS
Low and High Power Protection	Increases reliability for non-linear motors where the load characteristic has little change
Built-in Display	Visual indication for programming, viewing real-time voltage, current, kilowatts, or horsepower, and last fault code
Programmable voltage and current settings	Allows usage on wide range of systems
3 selectable restart options	Choose from automatic, semi-automatic, or manual to best meet individual application needs
3 programmable restart delay timers	Program separate restart delay time for rapid cycle protection, motor cool down, and dry-well recovery
Remote display compatibility	Increases safety through remote display of real-time data and fault history, without the need to open the cabinet. Aids with arc flash safety regulations
Flexible reset	Reset can be done through pushbutton on relay or remotely with optional 777-MRSW or OL-RESET remote reset kit
Network communications capability	Compatible with Modbus, DeviceNet**, Profibus, or Ethernet using optional communications module

777-KW/HP-P2 SERIES

Ordering Information

MODEL	LINE VOLTAGE	MOTOR FULL AMP RANGE	DESCRIPTION
777-KW/HP-P2	200-480 V ac (3-phase)	2-800 A (external CTs required above 90 A)	Provides 480 VA @ 240 V ac output SPDT relay contacts
777-LR-KW/HP-P2	200-480 V ac (3-phase)	1-800 A (external CTs required above 9 A)	Provides 480 VA @ 240 V ac output SPDT relay contacts
777-HVR-KW/HP-P2	340-480 V ac (3-phase)	2-800 A (external CTs required above 90 A)	Provides 470 VA @ 600 V ac output SPDT relay contacts. Required when a CPT (control power transformer) is not used on a 480 V system. Commonly used in pumping applications to save the cost and extra wiring associated with a CPT
777-575-KW/HP-P2	500-600 V ac (3-phase)	2-800 A (external CTs required above 90 A)	Provides 480 VA @ 240 V ac output SPDT relay contacts. Used in Canada and NE USA where 575 V utility power services are common
777-MLR-KW/HP-P2	200-480 V ac (3-phase)	0.5-21 A and 40-740 A with external CTs	Provides 480 VA @ 240 V ac output SPDT relay contacts. It is wired directly without the need to loop conductors for 5-21 amps (under 5 amps requires looping of conductors), and can be used with external CTs for 40-740 amps

Accessories

RS485MS-2W Communication Module
(for limited Modbus capabilities) Required to enable the Modbus communications function on Model 77X-type products.

CIO-MB/CIO-120-MB Communication Module
Modbus-RTU interfaces capable of providing discrete control and monitoring of an overload relay over a Modbus network.

CIO-DN-P/CIO-120-DN-P Communication Module
DeviceNet™ interfaces capable of providing discrete control and monitoring of motor starters, drives and other devices over a DeviceNet** network.

CIO-777-PR Communication Module
Profibus interface capable of providing discrete control and monitoring of motor starters, drives and other devices over a Profibus network.

CIO-EN (non-POE) Communication Module
Modbus-TCP and Modbus-RTU interface capable of providing discrete control and monitoring of an overload relay over a Modbus network.

Communication Adapters
- **RS485-RS232**–Converter with cable & plug
- **RS485-USB**–Converter with cable & plug
- **RS232-USB**–Converter

Specifications match industry standard.

RM1000 Remote Monitor
The RM1000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring for up to 16 devices.

RM2000 Remote Monitor
The RM2000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring with event storage and real-time clock for date and time stamp.

Solutions Software: Solutions-M
Software features include data logging, real-time data monitoring and fault and event monitoring.

777-MRSW Manual Remote Reset Kit
Allows the 777 line of MotorSaver® and PumpSaver® products to be manually reset without opening the panel door.

OL-RESET Manual Remote Reset Kit
Allows the 777 line of MotorSaver® and PumpSaver® products to be manually reset without opening the panel door.

777-KW/HP-P2 SERIES

Specifications

Frequency	50/60 Hz
Functional Characteristics	
TC-Overcurrent Trip Class	02-60, J02-J60, L00-L60 or OFF
Output Characteristics	
Output Contact Rating (SPDT - Form C)	
Pilot duty rating	480 VA @ 240 V ac, B300
General purpose	10 A @ 240 V ac
Pilot duty rating for HVR model	470 VA @ 600 V ac, B600
General Characteristics	
Ambient Temperature Range	
Operating	-20 °C to 70 °C (-4 °F to 158 °F)
Storage	-40 °C to 80 °C (-40 °F to 176 °F)
Accuracy	
Voltage	±1 %
Current	±3 % (<100 A direct)
Power	±4 % (<100 A direct)
GF Current	±15 %
Timing	±0.5 second
Repeatability	
Voltage	±0.5 % of nominal voltage
Current	±1 % (<100 A direct)
Power	±2 %
Maximum Input Power	10 W
Pollution Degree	3
Class of Protection	IP20
Relative Humidity	10-95 %, non-condensing per IEC 68-2-3
Terminal Torque	7 in.-lbs.
Standards Passed	
Electrostatic Discharge (ESD)	IEC 61000-4-2, Level 3, 6 kV contact, 8 kV air
Radio Frequency Immunity (RFI), Conducted	IEC 61000-4-6, Level 3 10 V/m
Radio Frequency Immunity (RFI), Radiated	IEC 61000-4-3, Level 3 10 V/m
Fast Transient Burst	IEC 61000-4-4, Level 3, 3.5 kV input power
Short Circuit Rating	100 kA
Surge	
IEC	61000-4-5, Level 3, 2 kV line-to-line; Level 4, 4 kV line-to-ground
ANSI/IEEE	C62.41 Surge and Ring Wave Compliance to a level of 6 kV line-to-line
Hi-potential Test	Meets UL 508 (2 x rated V +1000 V for 1 minute)
Vibration	IEC 68-2-6, 10-55Hz, 1 mm peak-to-peak, 2 hours, 3 axis
Shock	IEC 68-2-27, 30g, 3 axis, 11 ms duration, half-sine pulse
Safety Marks	
UL	UL 508, UL 1053 (File #E68520)
CE	IEC 60947-1, IEC 60947-5-1
CSA	C22.2
Maximum Conductor Size (with insulation) through 777	0.65"
Dimensions	**H** 77.47 mm **(**3.05"); **W** 97.79 mm (3.85"); **D** 128.27 mm (5.05")
Weight	1.56 lbs. (24.96 oz., 707.6 g)
Mounting Method	Surface mount (4 - #8 screws) or DIN-rail mount

* Low current trip and high power trip are network programmable only

**DeviceNet is a trademark of its respective owner.

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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Данный компонент на территории Российской Федерации

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Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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